

UPnP ARCHITECTURE FOR HETEROGENEOUS NETWORKS OF SLAVE DEVICES

ABSTRACT OF THE DISCLOSURE

5

A non-IP (Internet Protocol) network is provided with UPnP (Universal Plug and Play) proxy enabling and interfacing logic. The UPnP enabling logic provides the modules required to effect the UPnP addressing, discovery, and description processes for each of the devices on one or more non-IP networks. Each of the non-IP networks may use the same or different network technologies, such as USB, Bluetooth, IEEE 1394, Home API, HomeRF, Firefly, X-10, and so on. During the UPnP control and event phases, the system provides the appropriate control transformation and event proxy processes to communicate commands to each non-UPnP-compatible device in the network, corresponding to the UPnP control commands received from a UPnP control object, and to communicate event status messages to and from the non-UPnP-compatible devices and the UPnP control object.

10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
90
95
100
105
110
115
120
125
130
135
140
145
150
155
160
165
170
175
180
185
190
195
200
205
210
215
220
225
230
235
240
245
250
255
260
265
270
275
280
285
290
295
300
305
310
315
320
325
330
335
340
345
350
355
360
365
370
375
380
385
390
395
400
405
410
415
420
425
430
435
440
445
450
455
460
465
470
475
480
485
490
495
500